854 Bldg.

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI 5-AI-01
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5590
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 5429

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0742	-29	35	29.53	~~68~~ 70	
Interim Check:	0832	-27				0 ppm (PID)
Interim Check:	~~1010~~	~~-28~~				
Interim Check:	1027	-20				
Interim Check:	1242	-13				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1450	-5	28	29.39	~~68~~ 70	

Description of Sampling Location: ~~South~~ North Cont. Room

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

854 Bldg.

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI5-AI-02
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5134
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 6499

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0740	-29	35	29.53	JD ~~68~~ 70	
Interim Check:	0830	-28				0ppm (PID)
Interim Check:	1025	-24				
Interim Check:	1240	-18				
Interim Check:	1450	-13				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1530	-11	28	29.39	JD ~~68~~ 70	

Description of Sampling Location: ~~North~~ South Conf. Room ("File Room")

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

Electrical Room

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI5-AI-03
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5101
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 5649

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0655	-32	31	29.56	68	
Interim Check:	0842	-25				0 ppm (PID)
Interim Check:	~~1030~~	~~-24~~				
Interim Check:	1027	-21				
Interim Check:	1237	-13				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1445	-6	28	29.39	70	

Description of Sampling Location: Conf. / Break Room

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

Maint. shop

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI5-AI-04
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5550
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 5468

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0725	-30	31	29.56	70	
Interim Check:	0855	-26				0 ppm (PID)
Interim Check:	1010	-22				
Interim Check:	1232	-14				
Interim Check:	1430	-7				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1510	-6	28	29.39	70	

Description of Sampling Location: Meeting Rm / Break Area

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

Ladies Locker Rm (AOI5-AI-05)

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI5-AI-05
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5052
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 5685

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0720	-30	31	29.56	70	
Interim Check:	0850	-25				0 ppm (PID)
Interim Check:	1012	-21				
Interim Check:	1230	-13				
Interim Check:	1435	-5				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1435	-5	28	29.39	70	

Description of Sampling Location: Central locker Area

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

Braskem

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI5-IA-06
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5306
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 6496

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0755	-30	31	29.56	68	
Interim Check:	0820	-29				0 ppm (PID)
Interim Check:	1040	-21				
Interim Check:	1250	-14				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1520	-6	28	29.39	68	

Description of Sampling Location: Braskem Bldg. Control/Operator Room on East side of Bldg.

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

No 3 Scale House

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by: Jenny DeBoer
Sampling Date: 2/15/2017

Location ID: AOIS-AI-08
Weather: 28, overcast

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 1166
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 605482

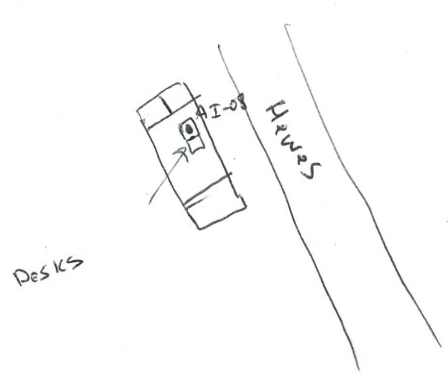
Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0802	26	32	29.53	83	Good
Interim Check:	0942	26				Cleaner odor - not working properly - has it changed - cap still on - removed cap
Interim Check:	1013	25				Good
Interim Check:	1150	19				PID = 0.0 ppm
Interim Check:	1335	16.5				
Interim Check:	1645	-4				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:			26	29.43	82	

Description of Sampling Location: Desk ~~inside~~ in center ~~end~~ of building

Sketch of Sampling Location:



Laboratory: ESC

Laboratory Sample ID: AOIS-AI-08-20170215

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes: propane odor outside

AA

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI 5-AA-09
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5120
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 5373

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0730	-30	32	29.56	NA	
Interim Check:	0840	-27				0 ppm (PID)
Interim Check:	1020	-21				
Interim Check:	1235	-12				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1440	-5	28	29.39	NA	

Description of Sampling Location: near fence at NE corner of Maint shop/ electrical Bldg.

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

AA

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by:
Sampling Date: 2/15/2017

Location ID: AOI5-AA-10
Weather:

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 5118
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 5774

Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0750	-30*	32	29.56	NA	
Interim Check:	0825	-30				0 ppm (PID)
Interim Check:	1030	-22				
Interim Check:	1245	-13				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1455	-6	28	29.39	NA	

Description of Sampling Location: near well MW-45

Sketch of Sampling Location:

Laboratory: ESC

Laboratory Sample ID:

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:

2 of 5

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by: Jenny DeBoer
Sampling Date: 2/15/2017

Location ID: AOI 5 - AA-11
Weather: 28° @ 900, overcas +
pressure - 999.3 mb

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 1800
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 005438

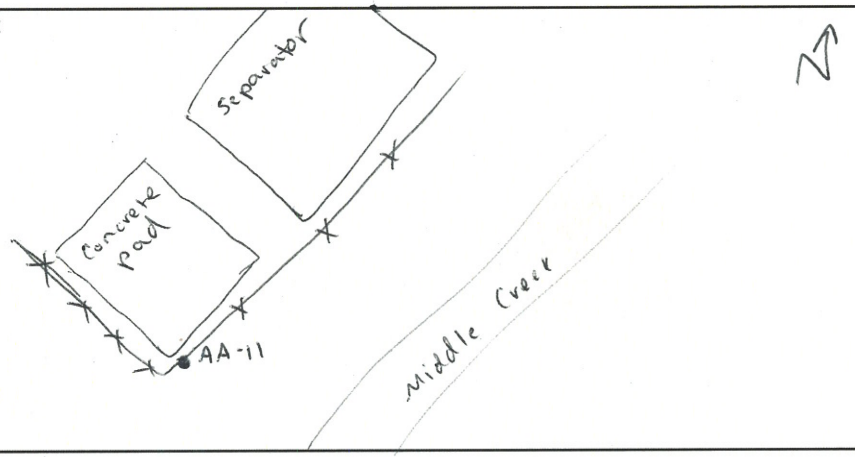
Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0735	-30+	28	29.60	N/A	Good
Interim Check:	0918	-26				Work on new piping - torching nearby
Interim Check:	1112	-19				Good, no work in area
Interim Check:	1302	-12				0.0 ppm - good - no work currently
Interim Check:	1440	-7				Good
Interim Check:	1504	-5.5				
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:			28	29.39	NA	

Description of Sampling Location: Hanging on fence near SE corner of pad

Sketch of Sampling Location:



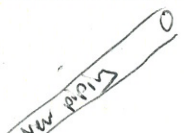
Laboratory: ESC

Laboratory Sample ID: AOI5-AA-11

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes:
Acetone being used, Advantage IW Industrial solutions 2216 B/A Gor Epoxy Adhesive using propane torch, welding in area

PID = 0.0 ppm



3 pm

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by: Jenny DeBoer
Sampling Date: 2/15/2017

Location ID: AOI 5 - AA - 12
Weather: 28, overcast

Stantec

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 2115
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 6472

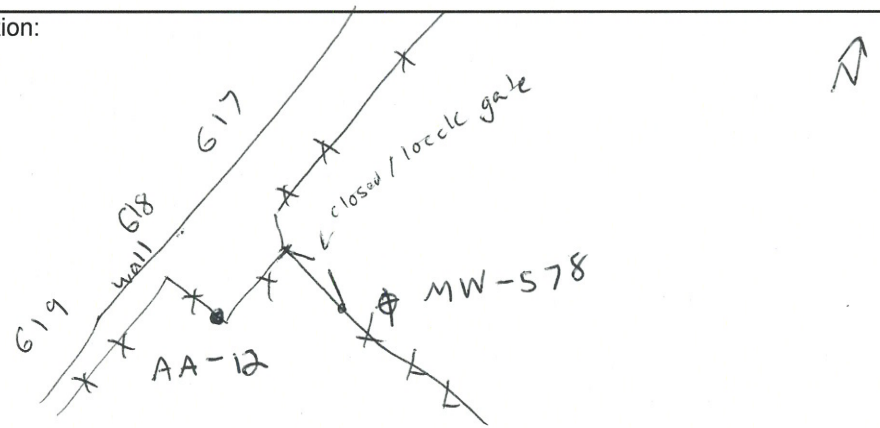
Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0830	27	28	29.60	NA	H2S odor
Interim Check:	1002	22				H2S odor
Interim Check:	1134	17				no odor
Interim Check:	1317	11				H2S odor 0.0ppm
Interim Check:	~~1352~~					
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1520	-5	27	29.39	N/A	Good

Description of Sampling Location: on fence south of Tank ~~619~~ 616 ~~621~~ containment wall

Sketch of Sampling Location:



Laboratory: ESC

Laboratory Sample ID: AOI 5-AA-12-20160215

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes: PID = 0.0 ppm

AIR SAMPLE FIELD INFORMATION

Project Name: Marcus Hook AOI 5
Project Number: 213402567
Sampled by: Jenny DeBoer
Sampling Date: 2/15/2017

Location ID: AOI-AA-13
Weather: 28, overcast

Stantec

3pm

Canister/Flow Controller Information

Canister Size: 6L
Canister Serial Number: 1011
Flow Controller Type (hrs): 8
Flow Controller Serial Number: 5452

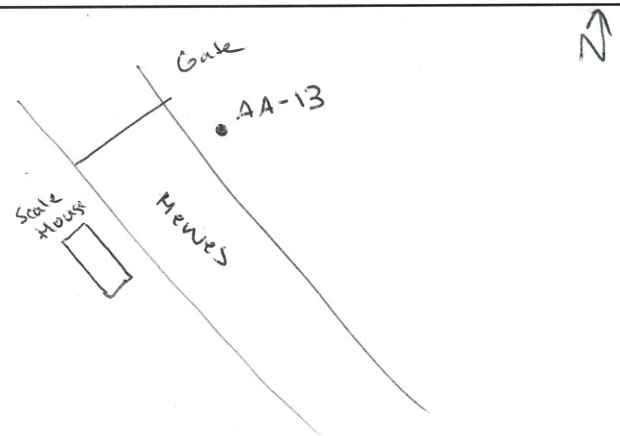
Pre-sample canister vacuum (inHg): NM Date/Time: NA
Pre-sample measurement tool: Digital gauge / analog gauge
Performed flow controller Shut In Test: Yes / No
Results of flow controller Shut In Test: Pass / Fail
Comments:

Sampling Information

	Time	Vacuum (inHg)	Ambient (Exterior) Temperature (°F)	Barometric Pressure (inHg)	Interior Temperature (°F)	Canister Condition/Comments
Sample Start:	0808	-30+	32 ~~24.56~~ JD	29.56	NA	
Interim Check:	0950	-24.5				Moderate propane odor
Interim Check:	1016	-22.5				"
Interim Check:	1147	-16				No odor 0 ppm
Interim Check:	1332	-9.5				Moderate propane oder (0 ppm)
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Interim Check:						
Sample End:	1450	-5	28 ~~24.39~~ JD	29.35	NA	Good

Description of Sampling Location: NW side of Hewes, near drive through gate

Sketch of Sampling Location:



Laboratory: ESC

Laboratory Sample ID: AOIS-AA-13-20170215

Analysis Requested: TO-15, Evergreen Comprehensive List

Additional Notes: Heavy traffic, propane odor in area

Stantec

INDOOR AIR QUALITY BUILDING SURVEY

This form must be completed for each building involved in an indoor air investigation.

Building Name: 854 Building

Preparer's Name: Jenny DeBoer Date Prepared: 1/19/2017

Preparer's Affiliation: Stantec Consulting Services, Inc.

Telephone Number: _____

OCCUPANT INFORMATION	
Contact Name	Bill Gayner
Company Name	Evergreen
Address	100 Green Street
City, State ZIP	Marcus Hook PA 19061
Home Telephone	
Office Telephone	610-859-1959

Owner_____ Renter_____ Other X

OWNER or LANDLORD INFORMATION	
Name (if different from Occupant)	SPMT
Address	
City, State ZIP	
Telephone	

Stantec

A. Building Construction

1. Type (check all that apply):

□ Single Level	□ Warehouse
□ Split Level	□ Strip Mall
□ Mobile Home	□ Residential
□ Duplex	□ Commercial
□ Triplex	□ Industrial
☒ Office	□ Strip Mall

□ Apartment Building: # of Units: _____

□ Other: _____

2. General Description of Use: Office Building

3. Year Constructed: 1985

4. Number of Floors Above Grade 2 Below Grade _____

5. Number of Occupants _____ Children _____ Adults _____ Total _____

Sensitive Population Present? N

Description of Occupancy Office workers- constantly

6. Area of the Building (square feet): 9000

7. Is the building insulated? ☒ YES □ NO

8. How sealed is the building? well

9. Roll-up Doors Present? (Y / (N)) Normally Open? (Y / N)

10. Number of elevators in the building: 1 - out of service

11. Condition of the elevator pits (sealed, open earth, etc.) did not observe

12. General description of building construction materials: Brick

---

B. Foundation Characteristics (check all that apply)

1. □ Full basement □ Crawlspace ☒ Slab on Grade-

Post Tension Slab? _____

□ Other: _____

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Were foundation design specifications and as-built drawings for the facility obtained? (Y) / N see attached

Was soil beneath the floor slab treated with lime before placing the slab? (Y / N)

Were fibers or additional rebar added to the concrete floor to minimize cracking? (Y / N) UNK

Was a vapor barrier installed under the floor slab? (Y / N) UNK

Describe:_____

Were any other liners installed under the floor slab? (Y / N) UNK

Describe:_____

NA 2. Basement Floor Description: □ Concrete □ Dirt □ Wood

□ Other:_____

a) Basement Floor is: □ Wet □ Dry □ Damp

b) Sump present? □ YES □ NO Water in sump? □YES □NO

c) Basement is: □ Finished □ Unfinished □Other:_____

d) Depth of basement:_____

e) Basement size (square footage:) _____

f) Is basement sealed? □ YES □ NO

Provide a description:_____

_____

NA - Linoleum

3. Concrete floor description: □ Unsealed □ Painted □ Epoxy Coating

□ Covered with:_____

4. Foundation walls: ☒ Poured Concrete □ Block □Stone □ Wood

□ Other:_____

C. ***Identify all potential soil gas entry points and their size (e.g., cracks, voids, pipes, utility ports, sumps, drain holes, etc.). Include these points on the building diagram.***

Drains present in 1st floor restrooms, EL (PID = 0), Floor drain in utility room

Stantec

D. Heating, Ventilation, and Air Conditioning (check all that apply)

1. Type of heating system(s):

- ☐ Hot Air Circulation
- ☐ Heat Pump
- ☐ Hot Water Radiation
- ☐ Un-Vented Kerosene Heater
- ☒ Steam Radiation
- ☐ Wood Stove
- ☐ Electric Baseboard
- ☐ Other (specify):_____

2. Type of fuel used:

- ☐ Natural Gas
- ☐ Electric
- ☐ Coal
- ☐ Fuel Oil
- ☐ Wood
- ☐ Solar
- ☐ Other:_____

3. Locations of heating system: External to building

4. Is there air conditioning? ☐ YES ☐ NO

If YES: ☐ Central Air ☐ Window Units

Specify location:_____

5. Other types of ventilation present: ☒ Bathroom vents (outside intake air)

☐ Mechanical fans

☐ Kitchen exhaust fan, where is it vented?_____

6. Are there air distribution ducts present? ☒ YES ☐ NO

7. Describe the supply and cold air return duct work including whether there is a cold air return and comment on the tightness of duct joints:_____

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8. Is there a whole house fan? □YES ☒NO

Is the fan operating? □ YES ☒NO

What is the size of the fan?_____

8. Temperature settings inside during sampling (note day and night temperatures).

a. Daytime Temperature(s) 70

b. Nighttime Temperature(s) 70

(Note times if system cycles during non-occupied hours during the day.)

9. Estimate the average time doors and windows are open to allow fresh outside air into the building. Note rooms that frequently have open windows or doors:_____

D. Potential Indoor Sources of Pollution

1. Are solvents used □YES ☒NO

What types: _____

2. Is the laundry room located inside the building? □YES ☒NO

3. Has the building ever had a fire? □ YES □ NO When: UNK

4. Is there an attached garage? □ YES ☒NO

5. Is a vehicle normally parked in the garage? □YES □NO NA

Gasoline powered equipment or storage canisters in garage? □YES □NO NA

6. Is there a kerosene heater present? □YES ☒NO

7. Is there a workshop, hobby or craft area in the building? □YES ☒NO

8. An inventory of all products used or stored in the building should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached **Products Inventory Form** (see page 11) should be used for this purpose.

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9. Is the stove: □ Gas □ Electric NA Is the oven: □ Gas □ Electric toaster

10. Is there an automatic dishwasher? □ YES ☒NO

11. Do people smoke in the building? □ YES ☒NO

How many smokers?_____ How long since they last smoked inside?_____

12. Has the building ever been fumigated or sprayed for pests? □YES □NO UNK

If YES, give date, type and location of treatment:_____

_____

E. Water and Sewage

1. Source of Water (check appropriate response)

☒Public Water □Dug Well

□Drilled Well □Other (specify):_____

□Driven Well

2. Water Well Specifications NA

Well Diameter_____

Well Depth_____

Depth to Bedrock_____

Feet of Casing_____

Grouted or Un-grouted_____

Type of Storage Tank_____

Size of Storage Tank_____

Describe type(s) of Treatment:_____

3. Water Quality

Taste and/or odor problems with water? □ YES □ NO

If YES, describe:_____

Is the water chlorinated, brominated, or ozonated? □ YES □ NO

How long has the taste and/or odor problem been present?_____

4. Sewage Disposal

X Public Sewer

□ Septic Tank

□ Leach Field

□ Other (specify):_____

Distance from well to septic system:_____

Type of septic tank additives:_____

Stantec

F. Plan View

Sketch each floor and if applicable, indicate air sampling locations, possible indoor air pollution sources, preferential pathways and field instrument readings.

See attached

Stantec

G. Potential Outdoor Sources of Pollution

Is there heavy traffic in the area ☒ YES ☐ NO

Stationary nearby sources (gas stations, emission stacks, etc ☐ YES ☐ NO

Describe Heavy truck traffic - AST, pipelines, railroad, unit stains unknown

Contaminant Site (1000' radius) ☒ YES ☐ NO

Describe former refinery MHIC

Draw a diagram of the area surrounding the building being sampled. If applicable, provide information on the spill locations (if known), potential air contamination sources (industries, service stations, repair shops, retail shops, landfills, etc.), outdoor air sampling locations, and field instrument readings.

Also, on the diagram, indicate barometric pressure, weather conditions, ambient and indoor temperatures, compass direction, wind direction and speed during sampling, the locations of the water wells, septic systems, and utility corridors if applicable, and a statement to help locate the site on a topographical map.

H. Date of last painting or staining of surfaces at the facility: UNK

Location where painting or staining occurred: _____

I. Date of last carpet/flooring replacement: UNK

Location(s): _____

_____

_____

Was glue used to attach carpeting to floor slab? _____

I. Describe Process/Manufacturing/Storage Areas:

NA

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J. Existing Soil Vapor Control Devices (pipes, vents, blowers, HVAC Add-ons) NA

Describe Observations, Locations: _____

_____

K. Existing sub slab depressurization (ie radon) system in place? □ YES □ NO NA

Is the system □ Active □ Passive Operational □ YES □ NO

L. Wall Surfaces (painted, textured) Painted

M. Noted Interior Sinks for VOCs drains in boiler room ? bathrooms

Stantec

PRODUCTS INVENTORY FORM

Occupant of Building: Various Contractors

Address: 854 Building

Field Investigator: Jenny DeBoer Date:

Product Description **(Commercial name, dispenser type, container size, manufacturer)**	**VOCs Contained in Product**	**Field Instrument Reading**	**Removed for testing?**
McCall Glass Cleaner			
McCall Surfacide			
True Kleen Window			
Strong odor of cleaners on 2nd floor			

Comments:

Stantec

INDOOR AIR QUALITY BUILDING SURVEY

This form must be completed for each building involved in an indoor air investigation.

Building Name: Braskem

Preparer's Name: Jenny DeBoer Date Prepared: 1/19/17

Preparer's Affiliation: Stantec Consulting Services, Inc.

Telephone Number: 610-209-2511

Bill Hastings

OCCUPANT INFORMATION	
Contact Name	Bill Hastings
Company Name	Braskem
Address	
City, State ZIP	
Home Telephone	
Office Telephone	

Owner_____ Renter_____ Other_____

OWNER or LANDLORD INFORMATION	
Name (if different from Occupant)	SPMT
Address	
City, State ZIP	
Telephone	

Stantec

A. Building Construction

1. Type (check all that apply):

□ Single Level	☒ Warehouse
□ Split Level	□ Strip Mall
□ Mobile Home	□ Residential
□ Duplex	□ Commercial
□ Triplex	□ Industrial
☒ Office	□ Strip Mall

□ Apartment Building: # of Units: _____

□ Other: _____

2. General Description of Use: usually just one ^ to two ~~person~~ people

3. Year Constructed: 1989

4. Number of Floors Above Grade 2 Below Grade _____

5. Number of Occupants _____ Children _____ Adults 1 ^ more now Total _____

Sensitive Population Present? No

Description of Occupancy 24 hrs a day in control room

6. Area of the Building (square feet): _____

7. Is the building insulated? ☒ YES □ NO

8. How sealed is the building? well sealed

9. Roll-up Doors Present? (Y) N) Normally Open? (Y / (N)

10. Number of elevators in the building: N

11. Condition of the elevator pits (sealed, open earth, etc.) _____

12. General description of building construction materials: Concrete 1st story insulated metal sheeting 2nd story

B. Foundation Characteristics (check all that apply)

1. □ Full basement □ Crawlspace ☒ Slab on Grade-

Post Tension Slab? _____

□ Other: _____

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Were foundation design specifications and as-built drawings for the facility obtained? (Y / N)

Was soil beneath the floor slab treated with lime before placing the slab? (Y / N) UNK

Were fibers or additional rebar added to the concrete floor to minimize cracking? (Y / N) UNK

Was a vapor barrier installed under the floor slab? (Y / N) UNK

Describe:_____

Were any other liners installed under the floor slab? (Y / N) UNK

Describe:_____

2. Basement Floor Description: □ Concrete □ Dirt □ Wood NA

□ Other:_____

a) Basement Floor is: □ Wet □ Dry □ Damp

b) Sump present? □ YES □ NO Water in sump? □YES □NO

c) Basement is: □ Finished □ Unfinished □Other:_____

d) Depth of basement:_____

e) Basement size (square footage:) _____

f) Is basement sealed? □ YES □ NO

Provide a description:_____

_____

3. Concrete floor description: □ Unsealed □ Painted ☒ Epoxy Coating
□ Covered with:_____

4. Foundation walls: ☒ Poured Concrete □ Block □Stone □ Wood

□ Other:_____

C. *Identify all potential soil gas entry points and their size (e.g., cracks, voids, pipes, utility ports, sumps, drain holes, etc.). Include these points on the building diagram.*

sink - not appm

Stantec

D. Heating, Ventilation, and Air Conditioning (check all that apply)

1. Type of heating system(s): Window units in ~~break room~~ control room
Electric heater in main area

- □ Hot Air Circulation
- □ Heat Pump
- □ Hot Water Radiation
- □ Un-Vented Kerosene Heater
- □ Steam Radiation
- □ Wood Stove
- □ Electric Baseboard
- □ Other (specify):_____

2. Type of fuel used:

- □ Natural Gas
- □ Electric
- □ Coal
- □ Fuel Oil
- □ Wood
- □ Solar
- □ Other:_____

3. Locations of heating system:_____

4. Is there air conditioning? ☒ YES □ NO

If YES: □ Central Air ☒ Window Units ,

Specify location:_____

5. Other types of ventilation present: ☒ Bathroom vents (outside intake air)

☒ Mechanical fans

□ Kitchen exhaust fan, where is it vented?_____

6. Are there air distribution ducts present? □ YES ☒ NO

7. Describe the supply and cold air return duct work including whether there is a cold air return and comment on the tightness of duct joints:_____

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8. Is there a whole house fan? ☒YES □NO

Is the fan operating? □ YES ☒NO - Operates in Summer

What is the size of the fan? 3'

8. Temperature settings inside during sampling (note day and night temperatures).

a. Daytime Temperature(s) 68°

b. Nighttime Temperature(s) 68°

(Note times if system cycles during non-occupied hours during the day.)

9. Estimate the average time doors and windows are open to allow fresh outside air into the building. Note rooms that frequently have open windows or doors:

D. Potential Indoor Sources of Pollution

1. Are solvents used □YES □ NO None observed

What types:

2. Is the laundry room located inside the building? ☒YES □NO

3. Has the building ever had a fire? □ YES ☒NO When:

4. Is there an attached garage? ☒ YES □ NO

5. Is a vehicle normally parked in the garage? □YES ☒NO

Gasoline powered equipment or storage canisters in garage? □YES ☒NO

6. Is there a kerosene heater present? □YES ☒NO

7. Is there a workshop, hobby or craft area in the building? □YES ☒NO

8. An inventory of all products used or stored in the building should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached **Products Inventory Form** (see page 11) should be used for this purpose.

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9. Is the stove: □ Gas □ Electric Is the oven: □ Gas □ Electric N/A

10. Is there an automatic dishwasher? □ YES ☒ NO

11. Do people smoke in the building? □ YES ☒ NO

How many smokers?_____ How long since they last smoked inside?_____

12. Has the building ever been fumigated or sprayed for pests? □YES ☒NO

If YES, give date, type and location of treatment: Traps - but no spraying

---

E. Water and Sewage

1. Source of Water (check appropriate response)

☒Public Water □Dug Well

□Drilled Well □Other (specify):_____

□Driven Well

2. Water Well Specifications

Well Diameter_____

Well Depth_____

Depth to Bedrock_____

Feet of Casing_____

Grouted or Un-grouted_____

Type of Storage Tank_____

Size of Storage Tank_____

Describe type(s) of Treatment:_____

3. Water Quality

Taste and/or odor problems with water? □ YES □ NO

If YES, describe:_____

Is the water chlorinated, brominated, or ozonated? □ YES □ NO

How long has the taste and/or odor problem been present?_____

4. Sewage Disposal

☒ Public Sewer

□ Septic Tank

□ Leach Field

□ Other (specify):_____

Distance from well to septic system:_____

Type of septic tank additives:_____

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F. Plan View

Sketch each floor and if applicable, indicate air sampling locations, possible indoor air pollution sources, preferential pathways and field instrument readings.

See attached

Stantec

G. Potential Outdoor Sources of Pollution

Is there heavy traffic in the area? ☒ YES ☐ NO

Stationary nearby sources (gas stations, emission stacks, etc ☐ YES ☐ NO

Describe_____

Contaminant Site (1000' radius) ☐ YES ☐ NO

Describe MMIC

Draw a diagram of the area surrounding the building being sampled. If applicable, provide information on the spill locations (if known), potential air contamination sources (industries, service stations, repair shops, retail shops, landfills, etc.), outdoor air sampling locations, and field instrument readings.

Also, on the diagram, indicate barometric pressure, weather conditions, ambient and indoor temperatures, compass direction, wind direction and speed during sampling, the locations of the water wells, septic systems, and utility corridors if applicable, and a statement to help locate the site on a topographical map.

H. Date of last painting or staining of surfaces at the facility: Painting in new maint area area around 1/20/17

Location where painting or staining occurred: ~~20~~

I. Date of last carpet/flooring replacement: 2016

Location(s): New maintenance area, are enclosed area west side of building

Was glue used to attach carpeting to floor slab? UNK

I. Describe Process/Manufacturing/Storage Areas:

Chemical storage under stairs near North side of building. Og large open area used to be instrument repair, now is mostly unused. On rare occasion, vehicles are parked inside (ex. - winter storms)

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J. Existing Soil Vapor Control Devices (pipes, vents, blowers, HVAC Add-ons) UNK

Describe Observations, Locations: _____

_____

K. Existing sub slab depressurization (ie radon) system in place? □ YES □ NO UNK

Is the system □ Active □ Passive Operational □ YES □ NO

L. Wall Surfaces (painted textured)_____

M. Noted Interior Sinks for VOCs none

Stantec

PRODUCTS INVENTORY FORM

Occupant of Building: Braskem

Address: _____

Field Investigator: Jenny DeBoer Date: _____

Product Description **(Commercial name, dispenser type, container size, manufacturer)**	**VOCs Contained in Product**	**Field Instrument Reading**	**Removed for testing?**
xtreme Blue Windshield washer			
Goj antimicrobial lotion soap			
Roto Zoil			
Sea Foam Deep Creep Lubricant			
Loctite SI 5015 BL Blue RTV Silicone Adhesive			
Loctite SI 587 Blue High Performance RTV Silicone Gasket Maker			
Sherwin Williams Multi Purpose Latex primer			
Pro Green Low VOC Paint 200			
Mapei ECO 711 Clear Thin Spread Adhesive			
Sak-T-eze antiseize			
CRC Food Grade Silicone			
Tomcat Gel Mouse Attractant			

Comments: _____

Stantec

INDOOR AIR QUALITY BUILDING SURVEY

This form must be completed for each building involved in an indoor air investigation.

Building Name: Electric Shop (502 - part of Mechanical Center)

Preparer's Name: Jenny DeBoer Date Prepared: 1/19/17

Preparer's Affiliation: Stantec Consulting Services, Inc.

Telephone Number: 610-209-2511

Charlie Gunther

OCCUPANT INFORMATION	
Contact Name	Charlie Gunther
Company Name	SPMT
Address	100 Green St
City, State ZIP	Marcus Hook PA
Home Telephone	
Office Telephone	

Owner_____ Renter_____ Other_____

OWNER or LANDLORD INFORMATION	
Name (if different from Occupant)	
Address	
City, State ZIP	
Telephone	

Stantec

A. Building Construction

1. Type (check all that apply):

□ Single Level	☒ Warehouse
□ Split Level	□ Strip Mall
□ Mobile Home	□ Residential
□ Duplex	□ Commercial
□ Triplex	□ Industrial
☒ Office	□ Strip Mall

□ Apartment Building: # of Units: _____

□ Other: _____

2. General Description of Use: Storage / workshop for electric equip

3. Year Constructed: UNK

4. Number of Floors Above Grade 2 @ south end Below Grade _____

5. Number of Occupants _____ Children 6 Adults _____ Total _____

Sensitive Population Present? NO

Description of Occupancy daily

6. Area of the Building (square feet): office / warehouse / shop

7. Is the building insulated? ☒ YES □ NO

8. How sealed is the building? well sealed

9. Roll-up Doors Present? (Y) N Normally Open? (Y) N)

10. Number of elevators in the building: N/A

11. Condition of the elevator pits (sealed, open earth, etc.) _____

12. General description of building construction materials: Brick exterior walls / block interior

B. Foundation Characteristics (check all that apply) NA

1. □ Full basement □ Crawlspace ☒ Slab on Grade-

Post Tension Slab? _____

□ Other: _____

Stantec

Were foundation design specifications and as-built drawings for the facility obtained? (Y / (N))

Was soil beneath the floor slab treated with lime before placing the slab? (Y / N) UNK

Were fibers or additional rebar added to the concrete floor to minimize cracking? (Y / N) UNK

Was a vapor barrier installed under the floor slab? (Y / N) UNK

Describe:_____

Were any other liners installed under the floor slab? (Y / N) UNK

Describe:_____

2. Basement Floor Description: □ Concrete □ Dirt □ Wood NA

□ Other:_____

a) Basement Floor is: □ Wet □ Dry □ Damp

b) Sump present? □ YES □ NO Water in sump? □YES □NO

c) Basement is: □ Finished □ Unfinished □Other:_____

d) Depth of basement:_____

e) Basement size (square footage:) _____

f) Is basement sealed? □ YES □ NO

Provide a description:_____

_____

3. Concrete floor description: ☒Unsealed □ Painted ☒Epoxy Coating
□ Covered with:_____

4. Foundation walls: □ Poured Concrete ☒ Block □Stone □ Wood

□ Other:_____

C. Identify all potential soil gas entry points and their size (e.g., cracks, voids, pipes, utility ports, sumps, drain holes, etc.). Include these points on the building diagram.

None identified

Stantec

D. Heating, Ventilation, and Air Conditioning (check all that apply)

1. Type of heating system(s):

□ Hot Air Circulation □ Heat Pump

□ Hot Water Radiation □ Un-Vented Kerosene Heater

☒ Steam Radiation □ Wood Stove

□ Electric Baseboard □ Other (specify):_____

2. Type of fuel used:

□ Natural Gas □ Electric □ Coal

□ Fuel Oil □ Wood □ Solar

□ Other: exterior to building

3. Locations of heating system: heat exchangers

4. Is there air conditioning? ☒ YES □ NO

If YES: □ Central Air □ Window Units wall unit air conditioners

Specify location:_____

5. Other types of ventilation present: □ Bathroom vents (outside intake air)

□ Mechanical fans

□ Kitchen exhaust fan, where is it vented?_____

6. Are there air distribution ducts present? ☒ YES □ NO

7. Describe the supply and cold air return duct work including whether there is a cold air return and comment on the tightness of duct joints:_____

Stantec

8. Is there a whole house fan? ☒YES ☐NO

Is the fan operating? ☐ YES ☒NO don't function

What is the size of the fan?_____

8. Temperature settings inside during sampling (note day and night temperatures).

a. Daytime Temperature(s) 65-70

b. Nighttime Temperature(s) "

(Note times if system cycles during non-occupied hours during the day.)

9. Estimate the average time doors and windows are open to allow fresh outside air into the building. Note rooms that frequently have open windows or doors:_____
half the year

D. Potential Indoor Sources of Pollution

1. Are solvents used ☒YES ☐ NO

What types: see chemical inventory

2. Is the laundry room located inside the building? ☐YES ☒NO

3. Has the building ever had a fire? ☐ YES ☒NO When:_____

4. Is there an attached garage? ☒ YES ☐ NO

5. Is a vehicle normally parked in the garage? ☐YES ☒NO

Gasoline powered equipment or storage canisters in garage? ☐YES ☒NO

6. Is there a kerosene heater present? ☐YES ☒NO

7. Is there a workshop, hobby or craft area in the building? ☒YES ☐NO

8. An inventory of all products used or stored in the building should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached **Products Inventory Form** (see page 11) should be used for this purpose.

Stantec

9. Is the stove: □ Gas ☒ Electric Is the oven: □ Gas ☒ Electric

10. Is there an automatic dishwasher? □ YES ☒ NO

11. Do people smoke in the building? □ YES ☒ NO

How many smokers?_____ How long since they last smoked inside?_____

12. Has the building ever been fumigated or sprayed for pests? □YES ☒ NO

If YES, give date, type and location of treatment:_____

_____

E. Water and Sewage

1. Source of Water (check appropriate response)

☒ Public Water □Dug Well

□Drilled Well □Other (specify):_____

□Driven Well

2. Water Well Specifications

Well Diameter_____

Well Depth_____

Depth to Bedrock_____

Feet of Casing_____

Grouted or Un-grouted_____

Type of Storage Tank_____

Size of Storage Tank_____

Stantec

Describe type(s) of Treatment:_____

3. Water Quality

Taste and/or odor problems with water? □ YES □ NO

If YES, describe:_____

Is the water chlorinated, brominated, or ozonated? □ YES □ NO

How long has the taste and/or odor problem been present?_____

4. Sewage Disposal

□ Public Sewer

□ Septic Tank

□ Leach Field

□ Other (specify):_____

Distance from well to septic system:_____

Type of septic tank additives:_____

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F. Plan View

Sketch each floor and if applicable, indicate air sampling locations, possible indoor air pollution sources, preferential pathways and field instrument readings.

Stantec

G. Potential Outdoor Sources of Pollution

Is there heavy traffic in the area ☒ YES ☐ NO

Stationary nearby sources (gas stations, emission stacks, etc ☐ YES ☐ NO

Describe _____

_____

Contaminant Site (1000' radius) ☐ YES ☐ NO

Describe MHIC

_____

Draw a diagram of the area surrounding the building being sampled. If applicable, provide information on the spill locations (if known), potential air contamination sources (industries, service stations, repair shops, retail shops, landfills, etc.), outdoor air sampling locations, and field instrument readings.

Also, on the diagram, indicate barometric pressure, weather conditions, ambient and indoor temperatures, compass direction, wind direction and speed during sampling, the locations of the water wells, septic systems, and utility corridors if applicable, and a statement to help locate the site on a topographical map.

H. Date of last painting or staining of surfaces at the facility: over 10 yrs ago

Location where painting or staining occurred: _____

I. Date of last carpet/flooring replacement: not recent

Location(s): _____

_____

_____

Was glue used to attach carpeting to floor slab? _____

I. Describe Process/Manufacturing/Storage Areas:

_____

_____

_____

_____

_____

Stantec

J. Existing Soil Vapor Control Devices (pipes, vents, blowers, HVAC Add-ons)

Describe Observations, Locations: _____

_____

K. Existing sub slab depressurization (ie radon) system in place? □ YES □ NO

Is the system □ Active □ Passive Operational □ YES □ NO

L. Wall Surfaces (painted, textured)_____

M. Noted Interior Sinks for VOCs_____

Stantec

PRODUCTS INVENTORY FORM

Occupant of Building:_____

Address:_____

Field Investigator:_____ Date:_____

Product Description **(Commercial name, dispenser type, container size, manufacturer)**	**VOCs Contained in Product**	**Field Instrument Reading**	**Removed for testing?**
Cable Clean Degreaser CRC			
Stor & Lube Corrosion Inhibitor CRC			
Lectra Clean CRC Heavy Duty electrical clean			
Preserve Gobbler Protectan Towels			
CRC Cutting Oil			
Heavy Duty Degreaser MVO CRC			
CRC Contact Cleaner 2000			
Loctite chisel Gasket Remover			
CRC Industrial Gasket remove			
~~CRC~~ Industrial CRC Battery Cleaner			
Preserve it Battery cleaner & Protecter			
CRC Battery Terminal Protector			
Loctite chisel Paint Stripper			
Various paints - Krylon			
MKG Steel Kot			

Comments:_____

_____

Lith-O-Grease Lithium Grease
Safe-Slip Spray Epoxy Safety Coating w/Grit
McCalls Hospital Disinfectant
Dwyer A-104 Red gage Fluid
Spray Penetrant 611 Safety Clean
Als Break Away
Electro Shield
Glyptal 1201-A Red Insulating enamel
Electro Sheild spray on clear flexible plastic like protective coating
Aero Kroil
CRC Silicone Lubrican
Als Slick Silicon spray
CRC Ice-off Windshield Spray De-Icer
BTS-99 Battery Terminal Sealer
Als Skin barrier cleam
Benzomatic Map Pro
Bee Bopper Bee and Hornet Killer
McCalls Glass & Plexiglass cleaner

Flamible Cabinets ↑

McCalls Glass Clean
McCalls Surfacide
McCalls Complete Bowl Bathroom cleaner
McCalls Machineless Cold Water Speed Stripper
Austin's A-1 Bleach
Flexi-Sheen Rubber Wax & Conditioner
McCalls Power Orange

southern storage Area - cleaner smell

Stantec

INDOOR AIR QUALITY BUILDING SURVEY

This form must be completed for each building involved in an indoor air investigation.

Building Name: Mechanical Center

Preparer's Name: Jenny DeBoer Date Prepared: 1/19/17

Preparer's Affiliation: Stantec Consulting Services, Inc.

Telephone Number: 610-209-2511

Mike Griffith Charlie Gunther - Ele

Jimmy Shoals - Fish Yard

OCCUPANT INFORMATION	
Contact Name	Mike Griffith
Company Name	SPMT
Address	100 Green St
City, State ZIP	Marcus Hook PA
Home Telephone	
Office Telephone	

Owner_____ Renter_____ Other_____

OWNER or LANDLORD INFORMATION	
Name (if different from Occupant)	
Address	
City, State ZIP	
Telephone	

Stantec

A. Building Construction

1. Type (check all that apply):

- [x] Single Level
- [ ] Split Level
- [ ] Mobile Home
- [ ] Duplex
- [ ] Triplex
- [ ] Office
- [ ] Apartment Building: # of Units: _____
- [ ] Other: _____
- [ ] Warehouse
- [ ] Strip Mall
- [ ] Residential
- [ ] Commercial
- [ ] Industrial
- [ ] Strip Mall

2. General Description of Use: Machine Shop
3. Year Constructed: _____
4. Number of Floors Above Grade 1 in some areas 2 in mid Below Grade ____
5. Number of Occupants ____ Children 15 Adults ____ Total ____

   Sensitive Population Present? N

   Description of Occupancy Dock chairs - Fish bowls Office space, mechanics use, satellite cafeteri
6. Area of the Building (square feet): _____
7. Is the building insulated? [x] YES [ ] NO
8. How sealed is the building? Not well sealed
9. Roll-up Doors Present? (Y)/ N) Normally Open? (Y) N)
10. Number of elevators in the building: N
11. Condition of the elevator pits (sealed, open earth, etc.) _____
12. General description of building construction materials: Block walls w/ concrete floor

B. Foundation Characteristics (check all that apply) NA

1. [ ] Full basement [ ] Crawlspace [ ] Slab on Grade-

Post Tension Slab? _____

[ ] Other: _____

Stantec

Were foundation design specifications and as-built drawings for the facility obtained? (Y / (N))

Was soil beneath the floor slab treated with lime before placing the slab? (Y / N) UNK

Were fibers or additional rebar added to the concrete floor to minimize cracking? (Y / N) UNK

Was a vapor barrier installed under the floor slab? (Y / N) UNK

Describe:_____

Were any other liners installed under the floor slab? (Y / N) UNK

Describe:_____

2. Basement Floor Description: □ Concrete □ Dirt □ Wood NA

□ Other:_____

a) Basement Floor is: □ Wet □ Dry □ Damp

b) Sump present? □ YES □ NO Water in sump? □YES □NO

c) Basement is: □ Finished □ Unfinished □Other:_____

d) Depth of basement:_____

e) Basement size (square footage:) _____

f) Is basement sealed? □ YES □ NO

Provide a description:_____

_____

3. Concrete floor description: ☒ Unsealed □ Painted □ Epoxy Coating
□ Covered with:_____

4. Foundation walls: □ Poured Concrete ☒ Block □Stone □ Wood

□ Other:_____

C. Identify all potential soil gas entry points and their size (e.g., cracks, voids, pipes, utility ports, sumps, drain holes, etc.). Include these points on the building diagram.

see drawing

Stantec

D. Heating, Ventilation, and Air Conditioning (check all that apply)

1. Type of heating system(s): Steam heat exchangers in building

- ☐ Hot Air Circulation
- ☐ Hot Water Radiation
- ☐ Steam Radiation
- ☐ Electric Baseboard
- ☐ Heat Pump
- ☐ Un-Vented Kerosene Heater
- ☐ Wood Stove
- ☐ Other (specify):_____

2. Type of fuel used:

- ☐ Natural Gas
- ☐ Electric
- ☐ Coal
- ☐ Fuel Oil
- ☐ Wood
- ☐ Solar
- ☐ Other:_____

3. Locations of heating system: Heat exchangers near ceiling in / blowers offices also have combination heater / air conditioner window units ionization

4. Is there air conditioning? ☒ YES ☐ NO

If YES: ☐ Central Air ☒ Window Units

Specify location:_____

5. Other types of ventilation present: ☒ Bathroom vents (outside intake air)

☒ Mechanical fans

☒ Kitchen exhaust fan, where is it vented? UNK

6. Are there air distribution ducts present? ☒ YES ☐ NO

7. Describe the supply and cold air return duct work including whether there is a cold air return and comment on the tightness of duct joints:_____

Stantec

8. Is there a whole house fan? ☒YES ☐NO Exhaust fans

Is the fan operating? ☐ YES ☒NO Rarely used - only used for ventilation - if welding. Don't weld very often

What is the size of the fan?_____

8. Temperature settings inside during sampling (note day and night temperatures).

a. Daytime Temperature(s) 70° in offices, cooler in shop

b. Nighttime Temperature(s) same as day

(Note times if system cycles during non-occupied hours during the day.)

9. Estimate the average time doors and windows are open to allow fresh outside air into the building. Note rooms that frequently have open windows or doors: 25% of time. Open in summer

D. Potential Indoor Sources of Pollution

1. Are solvents used ☒YES ☐ NO

What types: See inventory

2. Is the laundry room located inside the building? ☐YES ☒NO

3. Has the building ever had a fire? ☐ YES ☒NO When:_____

4. Is there an attached garage? ☒ YES ☐ NO

5. Is a vehicle normally parked in the garage? ☒YES ☐NO Nobody sits in garage

Gasoline powered equipment or storage canisters in garage? ☒YES ☐NO

6. Is there a kerosene heater present? ☐YES ☒NO

7. Is there a workshop, hobby or craft area in the building? ☒YES ☐NO

8. An inventory of all products used or stored in the building should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached **Products Inventory Form** (see page 11) should be used for this purpose.

Stantec

9. Is the stove: □ Gas ☒ Electric Is the oven: □ Gas ☒ Electric

10. Is there an automatic dishwasher? □ YES ☒ NO

11. Do people smoke in the building? □ YES ☒ NO

How many smokers?_____ How long since they last smoked inside?_____

12. Has the building ever been fumigated or sprayed for pests? ☒ YES □ NO

If YES, give date, type and location of treatment: Terminex contract - mice monthly treating - 1/20/17 - whole facility

E. Water and Sewage

1. Source of Water (check appropriate response)

☒ Public Water □ Dug Well

□ Drilled Well □ Other (specify):_____

□ Driven Well

2. Water Well Specifications

Well Diameter_____

Well Depth_____

Depth to Bedrock_____

Feet of Casing_____

Grouted or Un-grouted_____

Type of Storage Tank_____

Size of Storage Tank_____

Stantec

Describe type(s) of Treatment:_____

3. Water Quality

Taste and/or odor problems with water? □ YES □ NO

If YES, describe:_____

Is the water chlorinated, brominated, or ozonated? □ YES □ NO

How long has the taste and/or odor problem been present?_____

4. Sewage Disposal

☒ Public Sewer

□ Septic Tank

□ Leach Field

□ Other (specify):_____

Distance from well to septic system:_____

Type of septic tank additives:_____

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F. Plan View

Sketch each floor and if applicable, indicate air sampling locations, possible indoor air pollution sources, preferential pathways and field instrument readings.

see attached

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G. Potential Outdoor Sources of Pollution

Is there heavy traffic in the area ☒ YES ☐ NO

Stationary nearby sources (gas stations, emission stacks, etc ☐ YES ☐ NO

Describe _____

_____

Contaminant Site (1000' radius) ☒ YES ☐ NO

Describe MHIC

_____

Draw a diagram of the area surrounding the building being sampled. If applicable, provide information on the spill locations (if known), potential air contamination sources (industries, service stations, repair shops, retail shops, landfills, etc.), outdoor air sampling locations, and field instrument readings.

Also, on the diagram, indicate barometric pressure, weather conditions, ambient and indoor temperatures, compass direction, wind direction and speed during sampling, the locations of the water wells, septic systems, and utility corridors if applicable, and a statement to help locate the site on a topographical map.

H. Date of last painting or staining of surfaces at the facility: UNK - does not appear recent

Location where painting or staining occurred: _____

I. Date of last carpet/flooring replacement: UNK - does not appear recent

Location(s): _____

_____

_____

Was glue used to attach carpeting to floor slab? _____

I. Describe Process/Manufacturing/Storage Areas:

Build used to house a machine shop. in addition to several other work areas (plumbing, pipe shop, garage) Garage is still used, but separated from rest of building (Bldg 149) Machining equipmen is still present in Bldg 520 area, but unused. Drums of various lubricating oils are

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are still stored in Bldg 32 area South of fish bowl. some welding is conducted in eastern part of building

J. Existing Soil Vapor Control Devices (pipes, vents, blowers, HVAC Add-ons)

Describe Observations, Locations: UNK

K. Existing sub slab depressurization (ie radon) system in place? ☐ YES ☐ NO UNK

Is the system ☐ Active ☐ Passive Operational ☐ YES ☐ NO

L. Wall Surfaces (painted, textured) various

M. Noted Interior Sinks for VOCs see drawing

See photo

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PRODUCTS INVENTORY FORM

Occupant of Building: Sunoco logistics

Address: _____

Field Investigator: Jenny DeBoer Date: 1/19/17

Product Description (Commercial name, dispenser type, container size, manufacturer)	VOCs Contained in Product	Field Instrument Reading	Removed for testing?
McCalls Fresh Breeze			
McCalls Power Orang			
Ajax			
Shine-em -up Stainless Steel & Metal Polish			
Comet			
Propane - small cylinders			
Hydrogen Sulfide cylinders			
Propylene Glycol			
Formula Shell SAE 20W-50			
Shell T1 Heavy duty engine oil			
Shell Turbo			
Royal Purple Hitorq Synfilm GT			
Shell Omala S4 GX 220			
Shell Barrier Fluid			
Glykool Red PG			

Comments: _____

Numerous 55 gallon drums of lubricating oil in shop area

over

Peak Antiwear Hydraulic Fluid

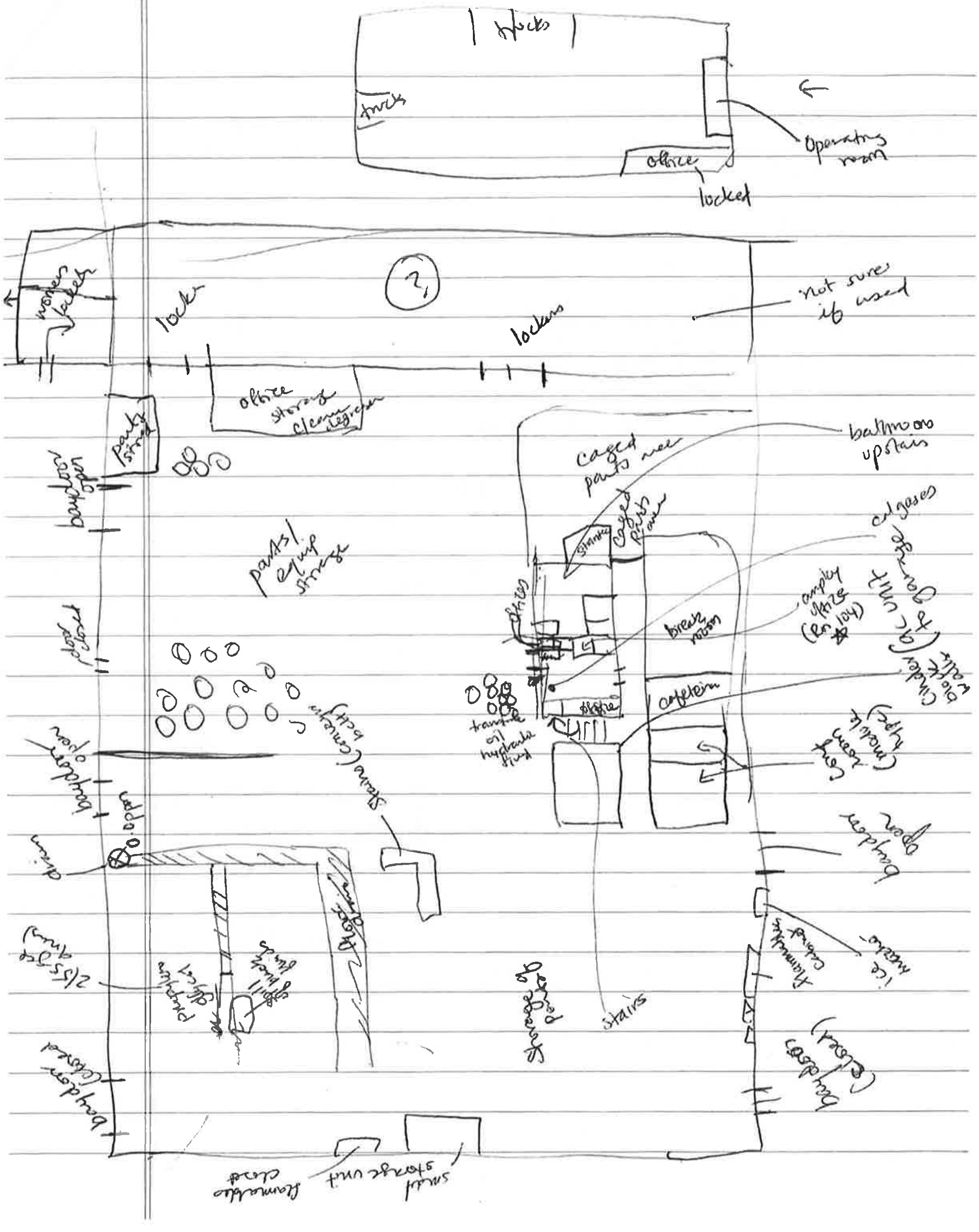
Shell Corena S4.P 100

Shell TURBO oil T 68, T 36

N - Propyl Alcohol

Ethylene Glycol

Used oil



trucks
trucks
Operating room
office
locked
locks
lockers
not sure if used
office storage cleaner degreaser
parts storage
caged parts area
bathrooms upstairs
parts/equip storage
stairs
break room
cafeteria
storage
transfer oil hydraulic fluid
cal gases
baydoor open
baydoor closed
stairs
small storage unit
flammable closet

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INDOOR AIR QUALITY BUILDING SURVEY

This form must be completed for each building involved in an indoor air investigation.

Building Name: No. 3 Scale House

Preparer's Name: Jenny DeBor Date Prepared: 1/19/17

Preparer's Affiliation: Stantec Consulting Services, Inc.

Telephone Number: 610-209-2511

OCCUPANT INFORMATION	
Contact Name	~~SPMT~~
Company Name	SPMT
Address	100 Green Street
City, State ZIP	Marcus Hook PA
Home Telephone	
Office Telephone	

Owner_____ Renter_____ Other_____

OWNER or LANDLORD INFORMATION	
Name (if different from Occupant)	
Address	
City, State ZIP	
Telephone	

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A. Building Construction

1. Type (check all that apply):

☒ Single Level	□ Warehouse
□ Split Level	□ Strip Mall
□ Mobile Home	□ Residential
□ Duplex	□ Commercial
□ Triplex	□ Industrial
□ Office	□ Strip Mall

□ Apartment Building: # of Units: _____

□ Other: _____

2. General Description of Use: Scale house

3. Year Constructed: 1968

4. Number of Floors Above Grade 1 Below Grade _____

5. Number of Occupants _____ Children 1 Adults _____ Total _____

Sensitive Population Present? _____

Description of Occupancy 24 hrs/day

6. Area of the Building (square feet): _____

7. Is the building insulated? ☒ YES □ NO

8. How sealed is the building? Well

9. Roll-up Doors Present? (Y / N) Normally Open? (Y / (N))

10. Number of elevators in the building: NA

11. Condition of the elevator pits (sealed, open earth, etc.) NA

12. General description of building construction materials: Brick exterior Interior Block

B. Foundation Characteristics (check all that apply)

1. □ Full basement □ Crawlspace □ Slab on Grade- NA

Post Tension Slab? _____

□ Other: _____

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Were foundation design specifications and as-built drawings for the facility obtained? (Y / N)

Was soil beneath the floor slab treated with lime before placing the slab? (Y / N) UNK

Were fibers or additional rebar added to the concrete floor to minimize cracking? (Y / N) UNK

Was a vapor barrier installed under the floor slab? (Y / N) UNK

Describe:_____

Were any other liners installed under the floor slab? (Y / N) UNK

Describe:_____

2. Basement Floor Description: □ Concrete □ Dirt □ Wood NA

□ Other:_____

a) Basement Floor is: □ Wet □ Dry □ Damp

b) Sump present? □ YES □ NO Water in sump? □YES □NO

c) Basement is: □ Finished □ Unfinished □Other:_____

d) Depth of basement:_____

e) Basement size (square footage:) _____

f) Is basement sealed? □ YES □ NO

Provide a description:_____

_____

3. Concrete floor description: □ Unsealed □ Painted □ Epoxy Coating
□ Covered with: linoleum tile - elevata

4. Foundation walls: □ Poured Concrete ☒ Block □Stone □ Wood

□ Other:_____

C. *Identify all potential soil gas entry points and their size (e.g., cracks, voids, pipes, utility ports, sumps, drain holes, etc.). Include these points on the building diagram.*

None observed - floor is covered w/ linoleum

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D. Heating, Ventilation, and Air Conditioning (check all that apply)

1. Type of heating system(s):

- ☐ Hot Air Circulation
- ☐ Hot Water Radiation
- ☒ Steam Radiation
- ☐ Electric Baseboard
- ☐ Heat Pump
- ☐ Un-Vented Kerosene Heater
- ☐ Wood Stove
- ☐ Other (specify):_____

2. Type of fuel used:

- ☐ Natural Gas
- ☐ Electric
- ☐ Coal
- ☐ Fuel Oil
- ☐ Wood
- ☐ Solar
- ☐ Other:_____

3. Locations of heating system: Exterior ✓

4. Is there air conditioning? ☐ YES ☐ NO Forced air

If YES: ☐ Central Air ☐ Window Units

Specify location:_____

5. Other types of ventilation present: ☒ Bathroom vents (outside intake air)

☐ Mechanical fans

☐ Kitchen exhaust fan, where is it vented?_____

6. Are there air distribution ducts present? ☐ YES ☒ NO

7. Describe the supply and cold air return duct work including whether there is a cold air return and comment on the tightness of duct joints:_____

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8. Is there a whole house fan? □YES ☒NO

Is the fan operating? □ YES ☒ NO NA

What is the size of the fan?_____

8. Temperature settings inside during sampling (note day and night temperatures).

a. Daytime Temperature(s) 75-80

b. Nighttime Temperature(s) 75-80 - sometimes drops to 80

(Note times if system cycles during non-occupied hours during the day.)

9. Estimate the average time doors and windows are open to allow fresh outside air into the building. Note rooms that frequently have open windows or doors:_____

D. Potential Indoor Sources of Pollution

1. Are solvents used □YES ☒NO

What types: _____

2. Is the laundry room located inside the building? □YES ☒NO

3. Has the building ever had a fire? □ YES ☒NO When:_____

4. Is there an attached garage? □ YES ☒NO

5. Is a vehicle normally parked in the garage? □YES ☒NO

Gasoline powered equipment or storage canisters in garage? □YES ☒NO

6. Is there a kerosene heater present? □YES ☒NO

7. Is there a workshop, hobby or craft area in the building? □YES ☒NO

8. An inventory of all products used or stored in the building should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached **Products Inventory Form** (see page 11) should be used for this purpose.

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9. Is the stove: □ Gas □ Electric Is the oven: □ Gas □ Electric NA

10. Is there an automatic dishwasher? □ YES ☒ NO

11. Do people smoke in the building? □ YES ☒ NO

How many smokers?_____ How long since they last smoked inside?_____

12. Has the building ever been fumigated or sprayed for pests? □YES □NO

If YES, give date, type and location of treatment:_____

_____

E. Water and Sewage

1. Source of Water (check appropriate response)

☒Public Water □Dug Well

□Drilled Well □Other (specify):_____

□Driven Well

2. Water Well Specifications

Well Diameter_____

Well Depth_____

Depth to Bedrock_____

Feet of Casing_____

Grouted or Un-grouted_____

Type of Storage Tank_____

Size of Storage Tank_____

Stantec

Describe type(s) of Treatment:_____

3. Water Quality

Taste and/or odor problems with water? □ YES □ NO

If YES, describe:_____

Is the water chlorinated, brominated, or ozonated? □ YES □ NO

How long has the taste and/or odor problem been present?_____

4. Sewage Disposal

□ Public Sewer

□ Septic Tank

□ Leach Field

□ Other (specify):_____

Distance from well to septic system:_____

Type of septic tank additives:_____

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F. Plan View

Sketch each floor and if applicable, indicate air sampling locations, possible indoor air pollution sources, preferential pathways and field instrument readings.

See attached

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G. Potential Outdoor Sources of Pollution

Is there heavy traffic in the area ☒ YES ☐ NO

Stationary nearby sources (gas stations, emission stacks, etc ☐ YES ☐ NO

Describe Y

Contaminant Site (1000' radius) ☐ YES ☐ NO

Describe MHIC - Cormar refinery

Draw a diagram of the area surrounding the building being sampled. If applicable, provide information on the spill locations (if known), potential air contamination sources (industries, service stations, repair shops, retail shops, landfills, etc.), outdoor air sampling locations, and field instrument readings.

Also, on the diagram, indicate barometric pressure, weather conditions, ambient and indoor temperatures, compass direction, wind direction and speed during sampling, the locations of the water wells, septic systems, and utility corridors if applicable, and a statement to help locate the site on a topographical map.

H. Date of last painting or staining of surfaces at the facility: unknown - not recent

Location where painting or staining occurred:

I. Date of last carpet/flooring replacement: unknown - not recent

Location(s):

Was glue used to attach carpeting to floor slab?

I. Describe Process/Manufacturing/Storage Areas:

Not applicable

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J. Existing Soil Vapor Control Devices (pipes, vents, blowers, HVAC Add-ons)

Describe Observations, Locations: _____ UNK

_____

K. Existing sub slab depressurization (ie radon) system in place? □ YES □ NO

Is the system □ Active □ Passive Operational □ YES □ NO

L. Wall Surfaces (painted, textured)_____

M. Noted Interior Sinks for VOCs_____UNK_____

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PRODUCTS INVENTORY FORM

Occupant of Building: Sunoco Logistics

Address: Hewes and Post Road

Field Investigator: Jenny DeBoer Date: 1/19/17

Product Description (Commercial name, dispenser type, container size, manufacturer)	VOCs Contained in Product	Field Instrument Reading	Removed for testing?
McCall Surfacide Disinfectant Cleaner			
McCalls Glass Cleaner			
McCalls Fresh Breeze Super Concentrated deodorizer & air freshener			
McCall complete Bathroom & bowl Cleaner			
Winterrise ice melt rinse aid			
Purell			

Comments: